

PATENT

AMENDMENTS TO THE CLAIMS

Following is a complete set of claims as amended with this Response. This complete set of claims excludes cancelled claims 1 and 2 and includes amended claim 3.

1. (Cancelled)
2. (Cancelled)

3. (Currently Amended) ~~The method of claim 2 further comprising: A method performed by an implantable cardiac stimulation device for analyzing a cardiac signal to generate information representative of the characteristics of R-waves and T-waves found therein, the method comprising:~~
~~sensing a cardiac signal;~~
~~Identifying pairs of consecutive R-waves and T-waves within the cardiac signal;~~
~~measuring values representative of characteristics of pairs of R-waves and T-waves;~~
~~generating statistical information representative of the measured values, the statistical information including an average of each measured value;~~
~~storing the statistical information generated for the measured values;~~
~~sensing additional cardiac signals;~~
~~Identifying R-waves in the additional cardiac signals and then applying the stored averaged values to identify expected locations and durations of T-waves within the additional cardiac signals;~~
~~blanking portions of an atrial channel of the additional cardiac signals to ignore signals occurring within a period of time corresponding to the expected locations and durations of T-waves;~~

PATENT

identifying an additional pair of consecutive R-waves and T-waves within the additional cardiac signals;

measuring values representative of characteristics of the additional pair of R-waves and T-waves;

determining an amount of variation between the measured values of the additional pair of R-waves and T-waves and the average of the measured values of previously identified pairs; and

determining whether the amount of variation exceeds a predetermined threshold of variation and, if not, updating the statistics to reflect the measured values of the additional pair of R-waves and T-waves.

4. (Original) The method of claim 3 wherein the amount of variation includes one or more of variation in an amplitude of the T-waves, variation in an amplitude of the R-waves, variation in a time delay between R-waves and corresponding T-waves, variation in a duration of individual R-waves, and variation in a duration of individual T-waves.

5. (Withdrawn) A system for locating T-waves within a cardiac signal using an implantable cardiac stimulation device, the system comprising:

means for sensing a cardiac signal;

means for determining an average time delay between consecutive R-waves and T-waves within a first portion of the cardiac signal;

means for determining average durations of the T-waves within the first portion of the cardiac signal; and

means for identifying R-waves in a second portion of the cardiac signal and then applying the average time delay and average T-wave duration to identify expected locations and durations of subsequent T-waves within the second portion of the cardiac signal.

PATENT

6. (Withdrawn) The system of claim 5 further comprising:
means for blanking portions of an atrial channel of the second portion of
the cardiac signal to ignore signals occurring within a period of time
corresponding to the expected locations and durations of the T-waves.

7. (Withdrawn) A system for locating T-waves within a cardiac signal using
an implantable cardiac stimulation device, the system comprising:
a sensor operative to sense a cardiac signal;
a controller operative to determine an average time delay between
consecutive R-waves and T-waves within a first portion of the cardiac signal, to
locate individual R-waves in a second portion of the cardiac signal, and then, for
each R-wave found in the second portion of the cardiac signal, to identify an
expected location of a subsequent T-wave using the average time delay.